7

240
2165
D

Index to Volume LII

JANUARY TO JUNE

1924

Electrical West

Journal of Electricity

Published by McGraw-Hill Company of California
San Francisco, California

TK1
.E495

AUTHORS' INDEX

	Page
Adams, H. Austin	*236
Allison, H. H.	*165
Arbogast, G. E.	409
Baker, Clark	408
Balzari, R. A.	45
Barker, George W.	491
Bartlett, John T.	*121
Bliss, H. H.	205
Booth, P. H.	384, 386
Bragg, George H.	*463
Brown, E. Earl	*20, *56, *102, *132, *172, *324, 362, *494
Caldwell, Virginia	*291
Carpenter, A. B.	417
Cates, R. H.	417
Childs, A. W.	7
Cipperly, E. J.	383
Corbett, L. J.	*438
Courtright, H. H.	411
Cowles, R. R.	*436
Cunningham, R. E.	445
Dellman, G. H. P.	404
Ducker, P. H.	*421, 433
Dyer, Kenneth H.	*58
Evans, J. M.	367
Fairbanks, W. H.	419
Frost, A. M.	415
Galloway, John D.	351
Garman, Roy	*275
Gilcrest, F. C.	450
Goldrick, H. C.	395
Goodwin, Charles	202
Hansen, Ole	*232
Haver, S. C., Jr.	429
Hinson, N. B.	*447
Hunt, Hon. George W. P.	9
Johnson, W. C.	430
Joy, Al. C.	*159
Kelley, C. A.	425
Kimball, G. E.	288
Kincaid, E. A.	17, *50, 128, 197, 240
McCullough, W. J.	393
McFarlane, D. D.	*47
McKee, H. O.	*425
Mackell, O. L.	55
Mitchell, Claude W.	*15, 124, 320
Mitchell, F. V.	248, 286, 326, 364, 496
Morris, J. M.	385
Moulton, J. S.	397, 423
Mulvaney, H. A.	*487
Norton, E. A.	394
Osier, Joe	*26, *63, *141, *179, *253, *293, *331
Phelan, Roy N.	290
Powell, R. C.	*427
Power, E. J.	402
Pride, A. W.	*237
Rollow, J. G.	*432
Simpson, O. M.	420
Simpson, Tracy	413
Smallcomb, C. T.	250
Snell, T. W.	443
Stannard, G. L.	387
Stauffacher, E. R.	*451
Strauch, A.	*321
Stull, Robert J.	*126
Tenney, George C.	*83, *481
Todt, P. W.	162
Tyrrell, Frank G.	*311
Wainscoat, J. M.	420
Watson, Theodore	*10
Wollaber, A. B.	397

Index to Volume LII

Illustrated articles are designated by an asterisk (*), editorials by a dagger (†).

Page

A

Aberdeen, Wash.—
- New street lighting system completed 28
- Power Company Contests Rights of Municipal Project 66
- Power Project Halted by Restraining Order 28
- Seeks Federal Permit for Wynooche River Site 332

Accounting Problem Questions Answered By Expert 289, 329, 367, 499

*Advertising for the Central Station—by Theodore Watson 10

Advertising Value of Electric Signs and Billboards—by Tracy Simpson 413

A.E.C. Urges Committee Report on Muscle Shoals Project 370

†Again Politics Loses 343

†Again the California Water and Power Act 305

A.I.E.E.—
- To Hold Convention at Philadelphia Feb. 4-8 110

Air Heating, Commercial and Domestic—by G. L. Stannard 387

Alameda County Electrical Contractor-Dealers' Assn.—
- Accountant Addresses 23

Albuquerque Gas & Electric Co.—
- Will Extend Light and Power to Atrisco District 30

All-Electric Apartments Rent Quickly in Santa Rosa 175

Alouette-Stave Project to Be Started 258

Alouette-Stave Tunnel Bids to be Called for 294

Amendments to Washington Power Measure Sanctioned 34

American Assn. of Engineers—
- Idaho Chapter to Meet at Pocatello 72

American Engineering Standards Committee Issues Book on Standardization 297

A.I.E.E.—
- Appoints Pacific Coast Convention Committee 34
- Denver Meeting 30

†Americanization of Ole Hansen, The 230

*An Executive Secretary Publishes a Peeve Re Putting Out the Prunes—by Joe Osier 253

Anchorage, Alaska, Planning Large Hydroelectric Power Development 183

†Another Reason for Private Ownership 3

Appliance Campaign, The Southern California Edison's—by A. W. Childs 7

†Appliance Merchandising Campaign of Southern California Edison Co. 3

*Appliances in Use, Checking Up on the Number of 64

*Appliance Sales Possibilities of the West 92

†Application of Electricity to Industry Is Increasing 79

Appoints Pacific Coast A.I.E.E. Convention Committee 34

Appropriation of Water Sought by California Applicants 221

†Are We Suffering from the Hoof and Mouth Disease? 477

Arizona—
- †And the Development of the Colorado River 2
- Girand Complies with Diamond Creek Permit 30
- How It Feels About Development of the Colorado River—by Hon. Geo. W. P. Hunt 9
- Power Sites, Application Made for 332

Arrangement and Storing of Materials, The—by C. A. Kelley 424

†As We Teach in the Schools Today, So Will the Next Generation Think 40

Association Formed by Portland Contractors and Dealers 251

Association of Lighting Fixture Dealers Organized 329

Association Opens Campaign to Defeat Bone Bill 468

Authorization and Assignment of Automotive Equipment—by J. S. Moulton 423

*Automatic Labor Saving Devices—by P. H. Ducker 421

B

Baker River—
- Site Applied for by Puget Sound Co. 106

†Baling Wire Methods in Rural Electrical Installations 307

Bankers Negotiating for Colorado Power Company Stock 299

*"Before and After" Views to Your Prospects, Show 26

Bend, Ore., Considers New Street Lights 371

Better Lighting Being Sponsored by Vancouver League 144

†Better Wiring Standards Are Becoming Popular 269

Bids for Cushman First Unit to Be Called March 27 218

Big Creek 8 Plant—
- Break in Penstock Results in Two Deaths 71
- Service Restored by Speedy Penstock Repairs 184

Big Creek No. 1 Plant Has Large Impulse Unit Ordered 297

*Blah Bosses Beget Blah Employees—by Joe Osier 331

Bone and Erickson Bills Discussed at Spokane Meeting 502

Bone Power Bill Advocates Seek Signatures for Petition 332

Bone Power Bill, Campaign for Is Opened in Seattle 469

Bone Power Bill Filed with Washington Secretary of State 294

†Booklet for Electrical Salesmen, A 231

Books and Bulletins 109, 144, 147, 185, 223, 261, 299, 375, 507

Boulder Canyon Dam Project Development Should Be by Private Interests 257

Boulder Canyon Legislation Success Doubtful 296

Boulder Canyon Site Favored 332

Boulder, Colo.—
- Electric Home Exhibition to Be Held 71

Break-Downs in the Field—by W. H. Fairbanks 419

British Columbia Company to Reduce Lighting Rates 298

British Columbia Electric Railway Co.—
- Asks for Tenders on Insulators 32
- Orders Equipment for Stave Lake Plant 337
- Completes $200,000 Transmission Line 66
- Largest Budget Since 1913 105
- To Build Line by Day Labor 333

Budget
- San Joaquin Will Spend Total of $6,000,000 in 1924 67

*Butt Valley Dam Completed for Great Western Company 874

C

California Development Association Requests Subscriptions to Complete Survey of California Water Resources 262

California Electrical Cooperative Campaign—
- Advisory Committee to Meet in L.A. 72
- Considers Plans for June Bride Week 181

California—
- Nineteen Permits Are Issued by Water Board 105

California Oregon Power Company—
- Applies for Permission to Raise Rates 104
- Completes New Substation at Roseburg 332
- Starts Link River Plant 66
- Starts Work on Copco No. 2 Plant 503
- To Rush Work on Copco No. 2 Plant 373

California Power Situation Is Subject of Meeting 502

California Power Situation Shows Improvement 467

California State Association of Electrical Contractors and Dealers Appoints Code Committee 297

California State Association of Electrical Contractors and Dealers Holds Large Meeting at Stockton 250

*California State Association of Electrical Contractors and Dealers Meeting Announced 499

†California Water and Power Act, Against the 305

California Water and Power Act Identical with 1922 Bill 294

California Water and Power Act to Be Placed on November Ballot 180

California Water Supply Increased by Rain and Snow 258

Can the Contractor-Dealer Be the Retail Outlet for the Industry?—by E. A. Kincaid 197

Capital Electric Co.—
- To Discontinue Auto Supplies 71

†Care Must Be Exercised in Comparison of Electrical Equipment 345

*Caribou Unit Placed in Service April 10 297

Carload of Ranges Ordered for Medford, Ore., Region 337

Celebrate Ground Breaking for Tacoma's Electric Home 29

Central Station—
- *Advertising—by Theodore Watson 10
- Employees Told of Company Activities 144
- Power in Competition with Fuel Engines—by W. C. Johnson 430

Chandeysson Electric Co. Issues Bulletins 507

"Check" Seal Campaign—
- Pacific States Co. Announces 1924 Program 70

*Checking Up on the Number of Appliances in Use 64

Cheyenne Light, Fuel & Power Co.—
- Places Boiler and Equipm't in Service 32

Chinese June Wedding Held at Los Angeles Electric Club Meeting 507

Christmas—
- Denver Outdoor Trees Prove to Be Popular 60
- Newspaper Comments on Safe and Sane, This Year 67
- *Parties Are Held for Puget Sound Employees 107

City Electricians of California Form New Organization 137

City of Los Angeles Faces Choice of Special Election or Law Repeal 181

Clavilux, The 148

Cle Elum, Wash.—
- Stone & Webster Building New Substation 71

Coast Outlet, The *20, *56, *102, *132, *172, 208, 250, 288, 324, 362, 494

Page

Code Committee Appointed by Contractors' Association 297
Code Discussion by Sacramento Contractors and Wiremen 366
Coffin Medal for 1923 Is Awarded..... 505
Colorado Central Railways Co. of Denver Purchases Denver Factory Site..... 186
*Colorado Company Conducts Appliance Sale Drive 331
Colorado Power Co. Is Acquired by Doherty Interests 371
Colorado Power Company—
Wins Right to Raise Rates..... 104
Colorado River—
†Arizona and the Development of the 2
How Arizona Feels About Developm't 9
Power Commission Threatens to Halt Girand Project 67
To Be Controlled by Black or Mojave Canyon Dam 256
Colorado Springs Bond Election Postponed Two Weeks 294
Colorado Springs Bonds, Groups Organized For and Against 332
Colorado Springs to Vote on Municipal Ownership 180
Columbia River Basin Report to Be Made at December Session 376
Columbia Valley Power Co. Completes Diamond Drill Work on Deschutes River 256
Columbia Valley Power Co.—
License Issued to 503
Development of Deschutes Power Site to Be Started Soon..... 30
Commercial and Domestic Air Heating—by G. L. Stannard..... 387
Commercial Lighting, Recommended Standards for—by H. H. Courtright..... 411
Commission Regulation Defended..... 119
†Community Advertising, The Part of the Utility in 79
Community Electrical Exhibits to Be Subject of Plan 293
*Conductors, Installation of Identified—by Claude W. Mitchell 15
Conference Reports No Critical California Power Shortage 218
Consider Denver Christmas Sales Campaign Successful 32
†Consider the Goldfish 345
Consideration Given to New Type Fishways for High Dams 258
Constitutionality of State Tax on Electric Trucks Upheld 299
*Construction Crews Served Meals Near Tunnel Headings 183
Construction Expenditures of Utilities for 1924 Summarized 375
Construction Problems Told in Illustrated Booklet 33
Construction on Alouette-Stave Project to Be Started 258
Construction on Steam Plant at Longview Progressing 373
Consumers' Service Bureau, Activities of—by A. M. Frost..... 415
Control Equipment Described at Denver Meeting 334
Cooperative Campaign, Results Tell the 1923 Story of 168
Cooperative Fan Motor Program Undertaken by S.E.D. 289
*Cooperative Opportunity for Electrical Dealers, A 366
†Co-ordination and Cooperation 381
Coos Bay, Ore.—
Mountain States Power Company Increases Plant 67
*Coronado and Gearhart Calling: Answer "I'm Here" 508
Correspondence Course to Have Portable Laboratory Sets 180
Course for Meter Men in Denver, To Hold, March 17-21 193
†Courses for Employees Have Many Advantages 155
Courses in Illuminating Offered to Utility Employees 181
Court Directs Return of Power Funds Used for Propaganda 295
*Courteous Service Club Movement, The—by R. A. Balzari..... 45
†Crackers and Conventions 477
*Creating Interest in the Educational Exhibit 253
Current Comment 4, 42, 80, 118, 156, 194, 232, 270, 308, 478
Cushman Project, Contract for Equipment Is Signed 373
Cushman Project Power Line, Record Span Proposed for 374
†Customer-Ownership, Ultimate Goal of.... 116
Cushman Storage Dam Construction Contract Let 295
†Customer Ownership, Politicians Feel Power of 2
Customer Ownership Progress..... 157

D

Date Set for Colorado Springs Utility Purchase Vote 219
†Definite Step Toward Better Merchandising, A 192

Page

Declare Fishing Rights Have Priority Over Power 466
Delta Electric & Water Co.—
Permit Granted for Installation of Power Plant on Pilchuck Creek..... 108
Denver, Colo.—
City Electrician Issues Special Regulations 289
Concerns Hold Cooperative Radio Exposition 336
Consider Christmas Sales Campaign Successful 32
Electrical Cooperative League Holds Banquet for Architects 110
*Electrical Double Bungalow Displayed 65
Electrical Exhibit Entered in Women's Pageant 106
Electrical Men Hosts to Architects at Banquet 148
Investigation of Boiler House Economies Made 109
Meeting Discusses Service and Public Relations 72
New Electrical Jobbing Firm Opens 71
Outdoor Christmas Trees Prove to Be Popular 60
Public Service Company to Build New Substation 66
Railway Electrification Discussed by Engineers 72
Transmission Line to Be Extended from Fort Collins 33
*Department Store Methods an Aid in Checking Dealers' Costs 136
Deschutes Power Site to Be Started Soon, Development of 30
Deschutes River Project Subject of License Application 335
Development of Deschutes Power Site to Be started Soon 30
*Development of Public Investment in Privately Owned Utilities—by George C. Tenney 481
*Development Program Is Announced by Puget Sound Power & Light Co..... 145
Diamond Creek (dam), Girand Complies with Arizona Permit 30
Diamond Creek Project, Construction on Stopped 333
Diamond Drill Work Completed on Deschutes River Site 256
Dinner Meeting Held by Marin County Electrical Men 137
Directive Type of Radio Beacon Aids Aerial Navigation 171
*Disbursements and Returns..... 425
*Discontent Classified — Which Afflicts You?—by Joe Osier 293
Discuss Electric Home and Farm at San Diego Meeting 300
Discussion.....81, 233, 272, 346, 478
*Displaying the Merchandise to Suit the Clientele 212
*Displaying the Moderate Priced Electric Home 140
Diversion of Trinity River to Be Investigated 507
Diversion of Trinity River Is Recommended by Board 258
*Dressing Windows to Bring Sales and Win Prizes 178

E

East Bay Water Co.—
Files Application for Completion of Upper San Leandro Project..... 31
†Eat Toast, Only Make It Electrically..... 40
Edison Company Checks Output of Distribution Department 505
†Edison's Seventy-seventh Birthday, A Lesson From 117
†Education and Public Relations..... 154
Educational Entertainment Will Be Presented in Denver..... 262
Electric Appliance Sales, A Proposed Plan for Improving and Increasing—by George W. Barker..... 491
Electric Appliance Sales, The Promotion of—by H. C. Goldrick..... 395
Electric Appliances Selling No Problem to the Department Store — by E. A. Norton 394
Electric Clubs—
L. A. Will Have Annual Banquet.... 72
*Seattle Inaugurates Successful Electrical Contest 253
Seattle, Wash., Annual Dinner..... 34
San Diego to Hold Picnic in May..... 262
San Diego—Street Railway Men Entertained 34
San Diego Asked to Attend L. A. Banquet 107
Los Angeles, Host at Banquet..... 148
Los Angeles, Orphans Guests of..... 34
Los Angeles Elects 1924 Officers..... 186
Marysville Electrical Development Assn. Holds Dinner and Meeting.... 110
*Electric Heating in the Esparto Union High School—by A. Strauch..... 321
Electric Hoist, New Double-drum..... 31
Electric Home and Farm Discussed at San Diego Meeting 300

Page

Electric Home—
Celebrate Ground Breaking for Tacoma's 29
*Double Bungalow Displayed in Denver 65
*Exhibit at Hollywood..... 254
Exhibition to be Held in Boulder, Colo. 71
Electric Industrial Trucks and Tractors as Revenue Builders for Central Stations—by E. J. Power..... 402
Electric Meter Code Undergoing Revision 224
Electric Range—
Electric Ranges Sold by Unusual Letter 329
How Shall It Be Sold, Served and Installed? 355
†Include Provision for, in Every New House 2
Roseburg Has Modern Apartment House with 59
Electric Range Sales, The Promotion of—by P. H. Booth..... 386
*Electric Ranges Becoming Popular for Apartment Houses 328
Electric Signs and Billboards, Advertising Value of—by Tracy Simpson..... 413
Electric Smelter Proposed for Colorado School of Mines 261
Electric Transportation Meeting Discusses Traffic Problem 224
Electric Truck, The—The "Super-Appliance"—by J. S. Moulton and A. B. Wollaber 397
†Electric Trucks as a Traffic Aid..... 307
Electric Utilities of California, Employment Methods of—by S. C. Haver, Jr. 429
Electric Water Heaters, The Sale and Application of—by J. M. Morris..... 385
Electrical Appliances—
†Need for Standardization of..... 41
*Store Arrangement Aids in Merchandising—by D. D. McFarlane..... 47
Who Retails? 279
Electrical Construction — by E. Earl Browne 20, 56, 102, 132, 172, 208, 324, 362, 494
Electrical Contractor-Dealers' Assn.—
Accountant Addresses the Alameda County Assn. 23
Annual Election of Officers, S. F..... 107
Banquet Held 110
Sacramento Elects New Officers for 1924 23
Sacramento, Hold Meeting..... 338
San Diego, Calif., Celebrate Christmas 72
Stockton Meeting, March 15..... 175
†Electric Refrigeration, Growing Interest in 192
*Electric Signs, Giant, Are Erected in California 176
Electrical Cooperative League, Denver, Colo.—
Consider Denver Christmas Sales Campaign Successful 32
EMF Year Book Published..... 366
Electrical Exhibit Entered in Denver Women's Pageant 106
Entertains Architects at Banquet..... 110
Increases Number of Outlets Through Educational Campaign 179
Electrical—
Demonstration Given Before Portland Meeting 110
Development League, S. F.—*Entertains 65 Children 34
*Devices and the Better Homes Show 292
Facts Booklet May Be Published by Campaign 220
Inspection in Rural Districts, The Need for 320
Jobber's Stores Department — by P. W. Todt 162
Service League of British Columbia 148
†West, The 77
Wholesalers' Credit Club Holds Monthly Meeting 23
Workers, No. 340, Entertain Sacramento Electrical Men 109
Electrically Heated Cooking and Baking Equipment—by P. H. Booth..... 384
*Electrically Operated Hydraulic Valves—by George H. Bragg..... 463
Electricity—
†Has Had an Important Role in Expanding Human Service 41
†In the Architect's Home..... 476
Measuring Water with Salt and..... 8
*Telling the Story in the Palace of 24
*Versus Oil for Heating Iron Enameling Furnaces—by H. A. Mulvaney 487
Electrified Lumber Mill to Be Erected Near Victoria 29
Electrifying Denver's Modern School Buildings 179
*Electrifying Ogden's Water Supply..... 285
Elliott-Schmidt Electric Supply Co.—Opens in Denver, Colo..... 71
*El Paso Rotarians See What Is Behind the Button 146
Elwha River Plant—
Construction Sanctioned by State..... 334
Power Company Plans Expansion of 106

Page

Employee Relations Discussed at Sacramento Dealers' Dinner 251
Employment Methods of the Electric Utilities of California—by S. C. Haver, Jr. 429
Engineering Foundation to Make Tests on Small Arch Dams 257
Engineers' Club of Seattle Addressed by N. W. Prockett 186
Erection of Municipal Project Started by Loveland 334
Erickson Bill, The 243
Objectionable Features of..... 156
Error in Computation in Construction Article 81
†Example of Supervisorial Nature, An..... 268
†Executives, Democracy and Public Relations 230
Extensive Developments Planned by Pueblo Companies 260

F

*Fairs, Use County, to Develop Appliance Prospects 62
Farmer and Municipal Ownership, The.... 43
Fault Locater Put to Test on Power Company's Lines 32
Federal Power Commission—
Grants Preliminary Idaho Permit..... 67
Issues Licenses and Permits..... 297
†Might Employ the Navy Publicity Man 155
Rules and Regulations Changed..... 220
Regulations Printed 335
Threatens to Halt Girand Project.... 67
Filing on Bear River Is Made by Utah Utility Company 28
*Filtration Plant Power Equipment, Calif. 69
Fish, When Electricity Is Used to Light the 42
Fishways, New Type for High Dams..... 258
*Fixture Dealer Develops New Type of Display Case 210
Florence Lake Crews Make Record for Tunnel Construction 336
*Focus the Prospect's Attention—Then Sell Him 215
Ford Bill, Committee Refuses to Report to Senate 467
Forest Service Would Cooperate in Public Service Conference 273
*Fostering the Family Spirit Among Utility Customer-Owners 360
Fresno Dealer Adopts Standard for Range Installation 137
Future Will See Marked Industrial Activity in the Western States, The..... 273

G

†Gardens at Utility Properties Win National Commendation 307
General Electric Company—
Duplicate Franklin's Experiment at L. A. Meeting 110
Electric and Steam Locomotives Entered Tug-of-War 108
Meetings Held to Introduce New Lines 251
*Mercury-Turbine Lowers Central Station Operating Costs 31
Opens KGO Broadcasting Station..... 68
Opens Pacific Coast Broadcasting Station 108
12 Electric Locomotives Ordered..... 33
World's Largest Hydroelectric Unit Placed in Service 32
*Genie of Your Lamp, The—by Joe Osier 179
*Get Ideas from Manufacturers' Agent and Jobber 177
Girand Project—
Girand Complies with Arizona Diamond Creek Permit 30
Power Commission Threatens to Halt 67
†"Go and Sin No More"..... 267
Gorge Creek Plant—
Completion Date Set as May 1..... 223
Nears Completion 260
Tunnel Will Not Be Completed by May 1 296
Grays Harbor Railway & Light Co.—
Contests Right of Aberdeen Municipal Project 66
Applies for Transmission Line Permit 144
Great Northern Railroad Telegraph Lines, Improvements Planned for 466
Great Western Power Company—
*California Filtration Plant Power Equipment 69
Is to Build Substation in Oakland.... 373
Group Insurance Provided for Power Company Employees 144

H

*Handball in Business, Playing to Win —by Joe Osier 141
Handling Appliance Repair Work Systematically 369
†Hard Work Is Cure for Hard Times..... 344
*Hartford Electric Light Co.—Mercury-Turbine Lowers Central Station Operating Costs 31
Has the Pacific Coast Jobber Problems That Are His Alone?—by E. A. Kincaid 128

Page

Hawaiian Electric Co.—Will Make Additions to Power System..... 30
Heavy Pipe Fittings Are Being Welded Electrically 33
Hetch Hetchy Project—
Action on Power Is Delayed by San Francisco Supervisors 66
S. F. Supervisors Vote to Start Evaluation 107
Steel Tower Contract Awarded..... 71
Supervisors Requested to Delay Bond Vote 181
Water and Power Argument..... 80
Water and Power Service to Modesto, Proposed Rates for..... 296
Water Issue Voted Paramount to Power 106
†Hidden Reef in Path of Trade Ass'na..... 117
†High Cost of Initiative..... 115
Highway Illumination, Possibilities in..... 116
Hillman Co., C. Kirk—Removes to New Quarters 32
*Hollywood Installs Ornamental Lighting System 182
Holt Mfg. Co.—"Saving Sierra Snows" (booklet) 33
*Home Gas & Electric Co., Greeley, Colo. Checking Up on the Number of Appliances in Use 64
Honolulu, T. H.—Will Make Additions to Electric Power System 30
Hoof and Mouth Disease Affects California Power Companies 333
Hoover Company Holds Annal Convention in San Francisco..... 219
How Arizona Feels About Development of the Colorado River—by George W. P. Hunt 9
†How Many Members of the Electrical Industry Are Registered?..... 268
†How Much More Will Be Spent on the Colorado River? 268
*How Shall the Electric Range Be Sold, Served and Installed? 355
*How the Power Company Aids Farm Land Settlement—by Al. C. Joy..... 159
†How to Lose a Customer..... 269
Hunt Electric Co.—Opens Retail Shop.... 33
Hydroelectric Development—
Survey Shows 1924 Will Be Record Year 97
On Skagit Tributaries Proposed..... 371
Plans for New Plant Announced by Puget Sound Company..... 71

I

Idaho—
Chapter of A.A.E. to Meet at Pocatello 72
Engineers Conduct Annual Meeting at Pocatello 148
Federal Power Commission Grants Preliminary Permit 67
Water Supply Below Normal..... 257
Idaho Power Co.—
Property Valuation Fixed for..... 69
To Be Granted Permit for Twin Falls Development 256
†If Arithmetic Won't Solve This Problem, Try Algebra..... 40
Illuminating Engineering Society Chapter Is Organized 506
"Illuminator, The"—House Organ of The Washington Water Power Company.... 108
Improvement of Industrial Lighting, The —by G. E. Arbogast..... 409
†In the Kingdom of the Blind a One-Eyed Man Is King..... 306
†Include Provision for Electric Range in Every New House 2
Increase Substation Equipment in San Francisco 145
Index to Volume 51 Ready for Distribution 107
India Wants Electrical Goods 131
Industrial Heating Schools to Be Held March 17-29 221
Industrial Lighting—
*Electrical Construction—by E. Earl Browne 20
The Improvement of—by G. E. Arbogast 409
Industrial News 28, 66, 104, 142, 180, 218, 256, 294, 332, 370, 466, 502
*Installation of Identified Conductors—by Claude W. Mitchell 15
*Insulation Aids Sale of Heating Equipment, Proper—by Kenneth H. Dyer.... 58
Interconnected System, Physical Aspects of the Pacific Coast..... 100
*Interdependence of Irrigation and Hydroelectric Power, The—by John D. Galloway 351
*Intermountain Electrical Men Hold Annual Convention 300
*Introducing the New Product on a Broad Scale 368
*Inventor to Demonstrate Color Organ in San Francisco 185
Investigation of Demand Meter Troubles —by F. C. Gilcrest 450
Is This a Case of Corrupting the Young? 194

Page

Ishi Pishi Permits Are Granted by California Board 469

J

Japan—
Consolidation of Westinghouse International and Mitsubishi 29
Electric Heater Orders 70
Telegraph System Nearly Completed, Restoration of 95
Jobber, Dealer and Sales Agent....*24, *60, *138, *176, *212, *252, 290, 330, *368, *500
Jobber—
†Key Link in the Chain, A..... 39
*Position of, in the Distribution System—by E. A. Kincaid..... 50
*June Bride Week to Stimulate Sale of Appliances 330
June Bride Window Display Contest, Formulate Plans for 219
June Bride Windows, Eleven Prizes to Be Given for 466

K

*Keeping the Firm Name Before the Public's Eye 254
*Keeping the Men Amused in Mountain Construction Camps 204
†Key Link in the Chain, A..... 39
*Kitchen Helps Department Store Sell Electric Equipment, Model..... 59
Kitchen Lighting Campaign Held in Rocky Mountain Region 182
Klamath River Project Made Dependent on Congress by New Bill..... 333

L

La Jolla, Calif.—New Street Lighting System Put in Service..... 33
Lake Cushman Power Project—
Tacoma Advertises Bond Sale for.... 69
Bids to Be Received by Tacoma..... 261
Bonds Bids to Be Received..... 33
Test of Dam Made..... 106
Lakeside Plant Will Not Be Ready Until Nov. 1 470
Large Impulse Unit Ordered for Big Creek No. 1 Plant..... 297
Largest Hydroelectric Unit Placed in Service, World's 32
LaRue, E. C., Gives Talk on Grand Canyon Trip 338
Lawyer's Opinion Halts Sale of Seattle Power Bonds 31
League Asks Separation of Hetch Hetchy Issues at Polls 262
*Let the Display Sell Results Instead of Materials 27
†Let Us Scotch the Rumor-Monger..... 344
Licenses and Permits Issued by Federal Commission 297
Licenses and Permits Rejected by Federal Commission 333
†Light Opera de Luxe..... 155
Light Snowfall May Mean Water Shortage in Nevada 184
†Lighting and Heating Schools for the West 476
Lighting Educational Campaign, Formulating Plans for 505
Lighting Educational Committee Details at N.E.L.A. Meet 337
Lighting Sales Schools to Be Conducted in California 219
*Line Work Speeded Up by Use of Earth Boring Machines 221
Link River Plant, California Oregon Co. Starts 66
Live Wires and Their Relation to Live Wiremen—by G. E. Kimball..... 288
Locomotives, Electric — 12 Ordered for Moffatt Tunnel 33
*Locomotives Entered Tug-of-War, Electric and Steam 108
Long-Bell Lumber Co.—
Awards Contract for Transformer Bank 28
New Power Plant..... 32
Orders Heavy Electrical Equipment... 71
*Puts Floating Power Plant in Service 335
Long Lake Plant Now Being Installed, Last Unit of 66
*Long Lake Power House — Work on Fourth Unit Nearly Completed..... 106
Long Lake Unit Put in Power Company Service, Fourth 183
Long Spans Suspended on Wooden Terminal Structures 222
Longview, Wash.—New Power Plant..... 32
Los Angeles Aqueduct, Engineer Explains Reason for Choosing Route of.... 479
Los Angeles, Calif.—
Council Votes More Money for Appraisal 32
Duplicate Franklin's Experiment at Meeting 110
Electric Club Will Have Annual Banquet 72
Engineer Testifies on Dam Project.... 180
Evaluation Payment Halted by Petitions 104
*Experiment in Municipal Power—by Frank G. Tyrrell..... 311

Page

Light and Power Bond Issue Opposed 333
Orphans Guests of Local Elect' Club 34
Meeting, Appliance Sales Committee, Pacific Coast Electrical Assn. 71
Municipal System, Frank G. Tyrrell Takes Exception to 346
Pacific Electric Railway Builds Eight Electric Locomotives 181
Railway Starts Tunnel Construction 469
Some Facts About Service in 80
Will Vote on Power Bonds 332
Los Angeles Gas & Electric Corp.—
Awards Contract for First Unit of New Steam Plant 32
Council Votes More Money for Appraisal 32
Evaluation Payment Halted by Petitions 104
First Unit of New Plant Begun 104
Suit Filed to Prevent Evaluation of 371
Loveland, Colo.—
Starts Municipal Project 334
To Build Municipal Light Plant 257
Lumber Mill to Be Erected Near Victoria, Electrified 29

M

Maintenance and Operation of Automotive Equipment—by J. M. Wainscoat and O. M. Simpson 420
†Make the Smiles Campaign a Company Policy 193
*Making the Advertisement Appeal to the Customer—by Virginia Caldwell 291
*Making the Fixture Display Room More Efficient 505
Management Fee Reduced in New Electric Rate Schedule 296
Manufacturer, Dealer and Jobber Activities *35, *73, *111, *149, *187, *225, *263, 301, *339, *377, *471, 509
*Manufacturer's Advance Card Is Used to Sell Appliance Line 329
Manufacturers' Agent, Problems of the—by E. A. Kincaid 17
*Manufacturing High Voltage Insulators on the Pacific Coast—by A. W. Pride 237
†Matter of Margins, The 192
Mazda B and C Prices Are Reduced 7½ Per Cent 147
Measuring Water with Salt and Electricity 8
Medford, Ore., Region, Carload of Ranges Ordered for 337
Meetings *34, 72, 110, 148, 186, 224, 262, 300, 338, 376, 470, 508
Members Sought by Society for Electrical Development 503
Menace to All Private Enterprise, A 118
*Mercury-Turbine Lowers Central Station Operating Costs 31
†Message for the New Year, A 1
Meter Course in Denver, Forty Men to Attend Short 222
Mileage vs. Hourly Rate as a Basis of Charge for Use of Automobiles—by P. H. Ducker 423
Misinformation Regarding Superpower 42
Misstatement in June 1 Issue Corrected 503
*Model Kitchen Helps Department Store Sell Electric Equipment 59
Moffatt Tunnel—12 Electric Locomotives Ordered 33
Mokelumne River Power Project, Application for Filed 370
Monterey Dealer Makes Penny Bring Appliance Sales 211
Morse Creek Hydroelectric Plant 297
Motives of Journal of Electricity in Opposing Municipal Ownership Questioned 478
*Motor Rewinding Jobs Sold on a Percentage Basis 210
Mountain States Power Co.—
Increases Coos Bay Plant 67
Plans Work on New Power Plant 104
Mountain States Telephone Company Entertains Rocky Mountain Electrical League 502
Municipal Light Plant to Be Built by Loveland, Colo. 257
Municipal Ownership—
Advocates Meet in Seattle 68
Agitation For, Started in Walla Walla 68
Question Up in Two Colorado Cities 371
Sanctioned by Colorado Springs 466
The Farmer and 43
†Where It Invariably Hits a Snag 40
*Municipal Power and Costs of City Government 233
Municipal Telephone Regulation Favored by Seattle Council 299
*Municipally Owned Street Railways 308
Muscle Shoals Project, A.E.C. Urges Committee Report on 370
Muscle Shoals Project Equipment Ordered 335

N

Nampa, Idaho—Municipal Power Plant Project Contemplated 71
†Nation of Investors, A 475
National Code Questions Are Answered by Engineer 328

Page

N.E.L.A.—
Meet, Lighting Educational Details at Rocky Mountain Division—Denver Meeting Discusses Service and Public Relations 72
Women's Public Information Committee, Pacific Coast Division, Meeting 69
National Electrical Code Circuit Grounding Requirements—by Claude W. Mitchell 124
National Electrical Code Errata for 1923 Are Announced 175
National Lighting Campaign to Be Aided by Denver Men 376
Need for Electrical Inspection in Rural Districts, The—by Claude W. Mitchell 320
†Need for Standardization of Electrical Appliances 41
Nevada-California Power Co.—Resumes Work on Owens River Project 29
*New Bill for Government Ownership, A 309
*New Building of the San Joaquin Light & Power Corporation—by Roy Garman 275
New Double-drum Electric Hoist, A 31
New Electrical Code Discussed at Boulder Meeting 376
New Electrical Code for Denver Is Being Considered 181
New Electrical Code Put in Effect in Portland 259
New Electrical Code, Questions and Answers on 137
*New Golf Trophy to Be Awarded at P.C.E.A. Convention 504
New Mexico Public Utilities Assn. to Hold Convention 110
*New Officers Named for Utility Information Committee 147
New Rate Schedules Are Set for Idaho Power Company 220
New Rate Schedules Established for Midland Corporation 222
New Street Lighting System in La Jolla Put in Service 33
†New Venture in Public Relations, A 3
†New Year, A Message for the 1
*New Year Resolutionists, Timely Resolutions for—by Joe Osier 26
†Next Generation Think, As We Teach in the Schools Today, So Will the 40
†No justification for Cut-Price Merchandising 193
†No Longer Is the Architect to Blame 268
North Platte River Commission Organized at Washington 298
Northwest Association Convention Announce Program for 508
Northwest Electric Club Members Hold Joint Picnic 508
Northwest Electric Company of Portland Installs Large D.C. Generator 370
Northwest Electric Light and Power Association—
To Hold Convention 296
Announces Tentative Program for Northwest Convention 338
†Northwest Electric Range Survey Deserves Support of Entire Industry 345
Northwest Telephone Companies Win Point in Rate Case 505
Northwestern Electric Company—Heavy Pipe Fittings Are Being Welded Electrically 33
Northwestern Power & Mfg. Co.—Plans Expansion of Elwha River Plant 106
†Not Even Politicians Can Give Something for Nothing 306

O

Oakland Electric Club Elects 1924 Officers 224
Oakland, Increased Electrical Business Foretold 295
Obituary—
Boquet, E. C. 113
Brooks, Edward S. 303
*Bylesby, Col. H. M. 379
Dougherty, Charles R. 75
Entelman, Edward 75
Gilman, Ralph 37
Hullin, Nicholas J. 227
Lawson, J. W. 379
Martin, Thomas Commerford 511
Neumiller, Walter 303
Scott, Tully 379
Simpson, J. S. 303
Stevens, Stanley S. 511
*Van Riper, H. T. 341
Weight, Wm. Albert 113
Objectionable Features of Erickson Bill 156
*Ogden's Water Supply Being Electrified 285
One Application of California Hydroelectric Development Received 505
Operators to Fight California Tax on Electric Trucks 182
Oregon Commission Initiative Bill Abolition Sought 295
Oregon Pulp & Paper Co. Adds 4,500-kw. Transformer 145
*Overhead Construction and Operation—by R. R. Cowles 436
Owens River Project, Power Company Resumes Work on 29

Page

Own Your Own Home Exposition in Tacoma Is Successful 338
†Ownership, Another Reason for Private 3
†Ownership, Politicians Feel Power of Customer 2

P

Pacific Coast A.I.E.E., Plans for Convention Announced 504
Pacific Coast—Physical Aspects of Interconnected System 100
Pacific Coast Electrical Assn.—
Adds New Members to Committees 299
Appliance Sales Committee Meeting, L. A. 71
*Commercial Section Meets at Del Monte 143
Convention at Coronado, June 17-20 186
*Courteous Service Club Movement—by R. A. Balzari 45
Tentative Convention Program Is Announced 470
Transportation Committee Holds Second Meeting of Year 33
Pacific Coast Electrical Supply Jobbers Hold Election of Officers 224
Pacific Coast Electrical Supply Jobbers to Hold July Meeting at Del Monte, Calif. 470
Pacific Gas and Electric Co.—
*California Filtration Plant Power Equipment 69
Fault Locater Put to Test on Power Company's Lines 32
Pit River No. 3—Railroad Site Has Been Completed 30
Pit River Transmission Line 6
Plans Reconstruction of Oroville, Calif., System 109
Publishes Instruction Booklet for Consumers 333
*Puts New Type Street Car in Service in Sacramento (picture only) 337
Reconstruction of High Tension Lines 30
Granted Water Rights in Nevada and Placer Counties 298
Takes New Public Relations Step ("P.G. and E. Progress") 31
Transfers 175 Acres Along Pit River to State 261
Pacific Northwest—"Power for Supremacy" (railroad booklet) 71
Pacific Power & Light Company—
Orders New Turbo-Generator for Astoria Plant 333
Reduces Rates 506
Reduces Rates in Washington Cities 371
To Overhaul Yakima Valley System 336
Pacific States Electric Co.—
Announces 1924 Program 70
*Palace of Electricity, Telling the Story in the 24
Parallel in Public Ownership, A 194
Pasadena, Calif.—Bond Issue Approved 105
Pasco to Pendleton Power Line Nearing Completion 143
Pawling & Harnischfeger Co.—Long-Bell Lumber Co. Orders Heavy Electrical Equipment 71
Pelton Water Wheel Co.—
To Ship Oak Grove Turbine Unit Before Middle of Month 32
World's Highest Head Reaction Type Turbine Completed 68
*Personals 36, 74, 112, 150, 188, 226, 264, 302, 340, 378, 472, 510
Acers, N. B., 340; Adams, C. W., 112; Adams, H. O., 302; Addis, J. N., 36; Ahrens, W. E., 379; Allen, C. V., 150; Alton, E. R., 37; Anderson, E. E., 150; Anzo, Yasuke, 265; Apfel, Philip F., 189, 226; Arbogast, Glen E., 378; Arkwright, P. S., 472; Armstrong, Grace T., 150; Arnold, Robert, 227; Aylesworth, M. H., 510.

Bacon, Arthur E., *75; Baker, H. E., 473; Baker, J. W., 150; Baldwin, George P., 113; Ballard, R. H., 264, 303; Barbera, A. A., 36; Barnes, D. C., 37; Barnes, E. L., 510; Barrett, Charles L., *472; Bartell, Edgar G., 511; Baurhyte, William, *188; Bayne, R. L., 150; Beck, Ernest V., *37; Becraft, Carl A., 264; Beers, R. S., 264; Begg, Norman, 189; Bell, T. A. E., 473; Beyersdorfer, Erroll H., 226; Bibbins, T. E., 379; Biewener, A. H., 473; Billica, Harry, 75; Birchfield, W. M., 189; Birkel, E., 340; Bishop, S. W., 151, 378, 473, 510; Bixler, George W., 378; Blackburn, L. A., 511; Blecksmith, F., 473; Board, V. L., 151; Bock, Otto, 473; Bohn, Robert F., 151; Bole, Allan, 265; Booth, Percy, 188, 227, 151; Boring George, 378; Botts, E. W., 151; Bowie, C. P., 226; Boyd, Charles G., 511; Boyer, Irving, B., 227; Boyle, R. E., 340; Brackenridge, W. A., 264, 510; Brainerd, W. F., 303; Brazier, E. E., 151; Brenner, R. O., 226; Brewster, Robert, 265; Brockett, Norwood W., 150, 226, 264, 378, 472; Brown, John C., 151; Brown, L. R., 36;

Brown, Robert K., *189; Browne, E. E., 150; Buckley, G. A., 149; Bump, Milan R., 303; Burnaby, F. H., 113; Butler, A. E., 473; Buttner, A. E., 511; Byrne, P. Harry, 473.

Cake, Ralph, 302; Calloway, A. J., 302; Campbell, J. F., 75; Campbell, William G., 188; Canada, Charles E., *113; Cannon, M. P., 137, 302; Carey, J. W., 340; Carpenter, Malcolm H., 227; Carr, Dr. W. H., 473; Carroll, A. E., 227; Carroll, F. D., 379; Carter, C. H., 59; Cary, Walter, *265; Case, S. L., 74; Chamberlain, Richard G., 75, 340; Chappell, H. C., 75, 473; Chatfield, Rey E., 37; Clapp, Ralph B., 149; Clark, L. E., 113; Clark, W. F., 340; Coates, F. J., 302; Cockrell, F. M., 340; Cody, L. W., 378; Coleman, W. H., 112; Collier, Charles A., 112; Collins, C. Louis, *265; Collins, L. D., 75, 510; Condon, Earl S., 303; Connolly, E. C., 303; Cook, George C., 74; Cooley, Frank N., 379; Cooper, H. W., 473; Cooper, John J., 302, 378, 473; Copley, A. W., 227; Cordes, H. A., 379; Cordiner, Ralph J., 75, 149; Cornell, A. C., 340, 378; Corrin, J. G., 112; Courtright, H. H., 473; Cram, Herbert A., 74, 227, 340; Crandall, LeRoy H., 226; Cravath, James R., 150; Crosby, E. J., 151; Curran, M. A., 112; Cyr, Wm. A., 151.

Dailey, H. H., 302; Dale, Miss Bertha J., 510; Davidson, J. C., 227; Dawson, George, E., 189; Day, A. B., *264; Dee, Ernest L., 303; Dellman, G. H. P., *227; Dennis, Walter J., 227, 341; Dicke, H. F., 151, 302; Dodge, Frederick N., 37; Dohrmann, A. B. C., 112; Douden, Paul A., 37; Dressler, Martha E., 378; Drew, Hal R., 302; Drill, A., 37; Duncan, James, 189; Durfey, W. E., 510; Dwight, Theodore, 265.

Easton, F. L., 113, 511; Eccles, C. R., 264; Eckerman, Max M., 37; Eckley, W., 303; Edgerton, John E., 226; Edwards, R., 378; Elkin, Albert, 75; Elliott, Roy W., *188; Erickson, Oliver T., 378.

Faller, Guy W., 74, 378; Ferguson, Hugh M., *150; Fish, A. T., 341; Fisher, R. E., 112; Flagg, Herbert J., *378; Flannigan, George E., 303; Fleishhacker, Mortimer, 341; Forsgard, C. H., 265; Forsyth, F. W., 341; Fowler, Joseph, 112; Francis, A. J., 112; Francis, Kenneth L., 112; Francis, L. A., 151; Frank, I. W., 341; French, Will J., 264; Froebel, G. H., 378, 379; Frost, A. M., 378; Frost, W. L., 473.

Garcin, Gene, 303; Gates, S. E., 74, 226, *378; Gawan, L. B., 265, 302; Gentry, R. G., 378, 473; George, F. R., 302; Gibson, Burton Y., 188, 227, 340; Gibson, J. H., 226; Givens, M., 341; Glocker, W. H., 74; Goodwin, W. L., 74; Gordon, Hugh, 510; Goward, A. T., 510; Grace, Harry A., 36; Grady, W. G., 189; Grahame, Mrs. Helen, 189; Grant, Henry, 36; Green, D. C., *36; Greenawalt, John F., *264, 510; Greenfield, William, 226; Greer, E. R., 473; Gregory, S. B., 340; Greisser, V. H., 75; Griffith, Franklin T., *74, *472, 511; Guscott, W. A., 473.

Hall, Sam, 151; Hanning, Miss E., 150; Harries, Maj.-Gen. G. H., *510; Harrington, E. D., 188; Hartness, James, 113; Hartzell, Harry, 511; Hassett, J. B., 36; Hawkins, J., 341; Hawks, H. D., 188; Headrick, E. C., 303, 473; Heinrici, C. W., 74; Heinrici, Husted, 74; Heise, C. E., 36; Helser, Charles W., 150; Herr, E. M., 340; Hickox, Norman B., 379; Hilficker, J. H., 74; Hill, Charles L., 36; Hillis, C. C., 264, 341; Hipkins, Bayley, 37; Hirsch, S. P., 112; Hitchcock, F. C., 265; Hobbs, Leonard A., 112; Hobrecht, J. C., 302; Hodges, W. H., 341; Holmes, S. S., 74; Holst, B. C., 113, 341; Holt, Lester M., 188; Holterman, R. J., *226; Hood, John, 265, *340; Hooper, J. M., 379; Howe, J. B., 37; Hughes, V. R., 340; Hunt, Mrs. Alma E., 37, 189, 265; Hunt, C. W., Jr., 113; Hutchinson, Ely C., 378.

Inch, Sydney, R., *75.

Jackson, U. G., 226, 378; Jacobs, Joseph, 113; Jacquet, George E., 74; Jerauld, R. E., *227; Jewett, Dr. F. B., 75; Johnson, Al, 75; Johnston, Wm. A., 74; Jones, Boyce C., 151; Jones, H. H., 510; Jones, Paul R., 303; Jones, R. R., 226; Jones, W. A., 472; Joyce, Harry B., 341.

Kaemper, W. H., 74; Kahn, Jacob, 112; Keegan, J. G., 378; Kemp, Milton G., 37; Kennedy, J. P., 113; Kerr, Harry H., 226, 378; Kidd, George, 227, 510; Kipp, E. P., 511; Klauber, L. M., *473; Klippel, Frank H., 113; Koch, L. McK., 378.

Lackey, O. F., 341; LaMont, Louis C., 340; Landon, Francis L., 341; Langevin, C. C., 473; Lee, Charles H., 472; LeGassick, George E., 340; Leonard, A. W., 264; Lewis, George E., 151, 378; Lewis, Lewis A., 189, 473; Libbey, R. C. W., 74, 112; Lichtenberg, Chester, 341; Lieb, John Wm., 36; Lindsay, Curtis M., 150; Lippert, Harry W., 112; Littlefield, J. T., 112; Littler, A. E., 227; Lockhart, O. C., 151; Loiseau, John E., 189; Loomer, James G., 226; Luscombe, Carl, 378; Lyle, W. R., 226; Lyman, Oliver B., 188.

McAfee, Harry E., 112; McCammon, F. F., 75; McCaulley, E. P., 37; McClure, D. C., 74, *226; McCormack, D. J., 37; McCourt, W. E., 265; McCulloch, D. H., 341; McElroy, Ross B., *341; McEniry, F. J., 36; McGrath, W. H., 37; McKenna, J. J., 75; McWilliams, J. A., 510; Mackell, O. L., 75, 188; Macy, E. C., 265; Mahoney, James W., *74; Marks, J. G., 113; Marsh, Earle M., 36; Martin, A. L., 378; Mason, D. T., 74; Mathews, W. R., 189; Maydwell, C. A., *36; Mayer, Phil, 151; Mayhew, L. T., 37; Mead, Dr. Elwood, 151; Meese, W. H., 75; Merrill, Z. E., 378; Merwin, L. T., 341; Mesick, Sam, 226; Mess, C. T., 112; Michener, H. V., *151; Middleton, R. J., *112; Millar, Preston, 511; Miller, Gray E., 37, 113; Miller, H. C., 226; Miller, H. J., 340; Miller, P. B., 151, 188; Miller, Paul R., 226; Mills, Fred S., 341, 511; Moffit, Robert, 340; Monahan, J. G., 511; Mong, O. E., 379; Moody, A. S., *189, 226, 303, *472; Morgan, William E., *303; Moriarity, A. F., 75; Morris, R. M., *151; Mull, J. H., 74; Mulvaney, Fred A., 302; Mumaw, W. C., 264; Murphy, Ray W., 36; Myers, Geo. L., 264.

Nevins, George F., 511; Nichols, B. R., 227; Nichols, L. M., 150; Nightingale, T. L., 340; Noack, Harry, 265; Norcross, Fred, 378; North, J. E., 112.

Ober, R. H., 113; Oehelmann, C. F., 74; Osborn, M. C., 74, 341; Osgood, Farley, 472.

Paine, Waldo G., 188; Parker, Edgar, 150; Patton, Harry V., 37; Peat, A. E., 510; Peckenpaugh, I. M., 366; Pendleton, C. H., 378; Perry, James W., 264; Peters, Clifton, 510; Peters, J. F., 227; Peterson, C. S., 378; Pfleger, G. F., 226; Phau, W. E., 379; Phillips, J. L., 378; Phinney, E. A., 378; Pierce, Martin L., 150; Platt, C. W., 511; Poe, Luther G., 341; Pollard, J. F., 188; Popp, H. E., 37; Porter, H. T., 37; Porterfield, W. A., 303; Portman, E. C., Jr., 189; Powell, S. C., 341; Powelson, J. W., 303; Pratt, Frederick D., 265; Price, Walter F., 112; Prietsch, Paul R., 36; Prussia, R. S., 36; Purdon, Arthur, 113; Pythian, G. H., 302.

Rademacher, W. L., 188, 340; Ralston, J. C., 341; Randall, H. D., 151, 226, 265, 340, 511; Rankin, G. M., 340; Rankin, H. M., 227; Redpath, J. W., 112; Reeves, Frank M., 264; Reynolds, C. S., 150; Rice, C. L., 74; Rice, H. C., 510; Rinehart, O. B., 112; Ritter, Ben, 265; Robertson, W. E., 112; Robley, F. G., 37; Robley, R. R., 227; Roller, F. W., 36; Rosenbaum, E. V., 472; Rosenfield, S., 340; Ross, J. D., 74, 264; Ross, W. M., 112; Rugg, Walter S., 510; Russell, C. A., 74; Ryall, James W., *303.

Sadenwater, Harry, 151; Sandoval, H. E., 341, 378; Schneider, C. V., *37, 472; Schroeder, Herman W., 112; Schwartz, W. P., 188; Scofield, E. S., 150; Scott, E. A., 112, 473; Scudder, John L., 151; Sears, W. C., 379; Seaver, W. H., 188; Semrad, Charles A., 379; Seybert, C. H., 37; Shannon, Charles N., 473; Sholders, Oliver E., 227; Simonson, G. M., 264; Simpson, T. M., 302; Slaughter, A. D. (Dent), 36; Small, A. R., 113; Smith, A. D., 227; Smith, Lombard J., 341; Smith, N. A. C., 226; Snow, Berkeley H., *510; Sprunt, J. P., 511; Stannard, Clare N., 303; Stauffacher, E. R., 113; Stenger, Ernest, 189; Sterne, W. C., 151; Stone, Ellery W., *511; Stoner, H. L., 188; Stowell, M. R., 112; Strange, John V., 265, *340; Strauss, L. L., 112; Sultan, W. S., 303; Surclaw, J. H., 472; Swain, G. A., 340; Sweeney, Joseph, 151; Sweet, Wm. E., Gov., 36.

Talbott, W. H., 36, 113, 226; Taylor, Samuel H., *302, *473; Teague, George, 188; Tenney, George C., 227; Terry, Albert Slocum, 379; Tewksbury, H. A., 75; Thane, H. S., 302; Thomas, C. C., 341; Thomas, George B., 113, 150; Thomas, H. M., 37; Thomas, Howard W., 151; Thompson, Charles E., 75; Thompson, Prof. Elihu, 151; Thompson, Miss Inez, *113; Tilden, Harry C., 510; Todt, Fred, 189, 341; Tracy, Joseph M., 151; Tregenza, A. E., 75, 379; Tufford, A. A., 341; Turnbull, Ray W., 149, 227, 340, *379, 511.

Uhl, C. T., 473; Uncapher, S. E., 112.

Van de Graaf, A., 37; Van Kuran, K. E., *150, 265, 472, *473; Varney, Theodore, 150; Veit, W., 37; Vincent, W. G., Jr., 510; Vorum, A. H., 74.

Waage, Theo., 151; Wagner, B. A., 151; Wakeman, G. F., 511; Wall, L. M., 151; Wallis, W. B., 341, 473; Ward, T. P., 75; Warren, Howard S., 473; Watson, L. M., 379; Warren, Alba H., *302; Weir, W. W., 379; Weiss, Charles, 151; Wells, George P., 113; Wells, Walter T., 340; Wenk, Roy E., 226; Wernecke, Carl L., 340; West, A. B., 264, 303; West, E. A., 151; West, G. M., 150; West, George S., 74; Wetherbie, J. O., 150; White, C. D., 75; White, Paul E., 265; Whitehorne, Earl E., 112; Whiteside, W. H., 37; Wilkinson, M. J., 473; Williamson, R. B., 379; Willis, Harold E., *511; Wilson, A. A., 189; Wilson, C. E., 112; Woeber, H. W., 151; Wood, L. A. S., 189, 379; Wood, R. J. C., 113; Woodmansee, Fay, 511; Woodward, F. H., 340; Worth, Roy, 511; Wright, Charles M., 113; Wright, K. C., 151; Wrigley, M. G., 265.

Yates, W. C., 303; Young, H. W., 112, 340; Young, R. Z., 379.

Page

Pilchuck Creek Site for Power House..... 108
Penstock at El Dorado Plant of Western States Co. Bursts..... 66
People's Electric Co., Medford, Ore..... 289
Permits Issued for Idaho and Montana Power Projects 28
Physicist Addresses Meeting of Portland Engineers 262
*Pit No. 3 Construction Work Progressing Rapidly 334
Pit River Power Company Refused New Permits on Power Sites..... 375
Plains Light & Water Co. Rate Reductions 70
†Plan for Every Month in the Year, A Sales 2
Plans for June Bride Week Are Considered by Campaign 181
Point System a Base for Salesmen's Quotas, The 63
†Politicians Feel Power of Customer Ownership 2
Port of Kalama, Wash., Seeks to Acquire Power Sites 218
Portland, Ore.—
  Branch of A.I.E.E. Have New Radio Set Described to Them..... 338
  Contractors and Dealers Form Association 251
  Labor to Investigate Municipal Power Plant Possibilities 298
  †Makes Convenience Outlets Compulsory 231
  Men Visit Oak Grove Project 374
  New Electrical Code Put in Effect.... 259
  Electrical Demonstration Given Before Meeting 110
Portland Railway, Light & Power Co.—
  Name Proposed Changed 261
  New Name of Utility..... 337
  Oak Grove Plant Construction Work Stopped 33
  Oak Grove Turbine Unit to Be Shipped 32
  World's Highest Head Reaction Type Turbine Completed 68
*Position of the Jobber in the Distribution System—by E. A. Kincaid..... 50
†Possible Menace to the Success of Future Conventions, A 344
†Pot of Gold at the End of the Rainbow, The 155
Power Bond Issue for $21,000,000 Defeated in Los Angeles..... 370
*Power Company Diagnoses Pump Troubles for Farmers..... 493
Power Company Men to Appear at Boulder Canyon Hearings 218
Power Company Resumes Work on Owens River Project 29
Power Conservation Committee Meeting Date Changed to May 2..... 296
"Power for Supremacy" (railroad booklet) 71
Power Plant on California River Is Put in Operation 183
Power Project—
  Aberdeen Halted by Restraining Order 28
  East Bay Water Co. Files Application to Complete Upper San Leandro Project 31
  Permits Issued for Idaho and Montana 28
Practical Public Ownership of Power Utilities 43
Practical Public Relations — by O. L. Mackell 55
Practical System of Accounting for Contractor and Dealer, A — by F. V. Mitchell.....*248, *286, *326, *364, *496
*Preparing Meals Electrically for Salt Lake City 141
Present Report on Developed and Potential Power 372

Page

Present Retail Salesman's Creed in Westinghouse Booklet 23
Priest Rapids Power Project Investigation Started 221
*Prime Movers, A Study of — by J. G. Rollow 432
*Private Electric Homes Sell Electrical Merchandise—by Roy N. Phelan 290
Problems of the Manufacturers' Agent—by E. A. Kincaid 17
*Progress Reported on Oak Grove Plant Construction 260
Promotion of Electric Appliance Sales —by H. C. Goldrick 395
Promotion of Electric Range Sales, The—by P. H. Booth 386
Proper Handling of Salvage, Waste and Obsolete Material — by W. J. McCullough 393
*Proper Insulation Aids Sale of Heating Equipment—by Kenneth H. Dyer 58
Proposed Plan for Improving and Increasing Electric Appliance Sales, A — by George W. Barker 491
Proposed Text of the Erickson Bill, The 243
Protest Against Dams on Baker River 466
†Public Contact from the Woman's Standpoint 192
Public Land Owners Cannot Eject Transmission Line Companies 504
Public Ownership—
  Can Be Justified in Isolated Cases Such as This 272
  †If Arithmetic Won't Solve This Problem, Try Algebra 40
  †Might Be Likened to Prohibition 78
  Of Power Utilities, Practical 43
Public Relations—
  †A New Venture in 3
  Committee Report Is Completed 262
  †Idea Does Not Extend to Government 116
  Practical—by O. L. Mackell 55
  S. F. Utility Takes New Step 31
Public Service Co. of Colorado—
  Electric Home Exhibition to Be Held in Boulder, Colo. 71
  Investigation of Boiler House Economies Made in Denver 109
  Surveys for Transmission Line from Fort Collins 33
  To Build New Denver Substation 66
†Public Service Conference, A 191
Public Speaking Training Given to Utility Employees 185
Public Utilities Commission of Idaho Fixes New Rates for Idaho Power Co. 506
Publicly Owned Utilities Should Be Regulated 118
Pueblo, Colo., Flood Prevention Crews to Work by Electric Light 371
Pueblo Companies Plan Extensive Developments 260
Pueblo Steel Mills to Be Electrified 373
Puget Sound Power & Light Co.—
  Announces $5,000,000 Program 70
  Baker River Site Applied For 106
  Children's Christmas Party 29
  *Christmas Parties Are Held for Employees 107
  Extends Service to Silver Lake and Marysville Districts 30
  Fault Locater Put to Test on Power Company's Lines 32
  Norwood W. Brockett Addresses Spokane Rotary Club and Associated Engineers 110
  Plans Extensive Improvements 182
  Plans for New Hydro Plant Are Announced 71
  Silver Lake-Marysville Power Line Completed 71
  Stone & Webster Building New Cle Elum Substation 71
  To Conduct Range Sales Campaign 257
  Property Seized in Tax Payment Battle 469
Puget Sound Pulp & Paper Company Asks for Seattle Electric Power Contract 370
Puget Sound Utility Pays Street Railway Tax Under Protest 502
†Put the Wife on the Payroll 306

Q

Quotas, The Point System a Base for Salesmen's 63

R

Radio—
  Beacon, Directive Type of Aids Aerial Navigation 171
  Engineer Addresses Oakland Club 470
  General Electric Co. Opens KGO Broadcasting Station 68
  General Electric Co. Opens Pacific Coast Broadcasting Station 108
  *Installations in Apartments and Homes—by Robert J. Stull 126
  †Monopoly, In the Matter of the So-called 117
  Third Annual Exposition to Be Held Feb. 6-10 108

Page

Railroad to Pit River No. 3 Site Has Been Completed 30
Railway Company Builds Eight Electric Locomotives 181
Railway Electrification Discussed by Denver Engineers 72
Rain and Snow Increase Water Supply of California 258
Range Campaign Being Conducted in Colorado City 373
Rates Often Misunderstood by Public 271
Recommended Standards for Commercial Lighting—by H. H. Courtright 411
*Red Seal Campaign Is Announced by National Society 503
†Reducing the Cost of Hydroelectric Development 231
Reintroducing the Proposed California $500,000,000 Socialistic Venture 317
Relation of Your Credit to Your Capital Investment, The—by Charles Goodwin 202
Report of "Smiles Armies" Made to San Diego Club 224
*Report of Sub-Committee on Aerial Cable Construction—by T. W. Snell 443
*Report of Sub-Committee on 4,000-Volt Overhead Distribution—by N. B. Hinson 447
*Report of Sub-Committee on Substitutes for Wood Poles—by L. J. Corbett 438
*Report of Sub-Committee on Line Switches, Fuses and Protective Devices—by R. E. Cunningham 445
Residence Lighting—by Clark Baker 408
Responsibility of the Jobber for the Contractor-Dealer—by E. A. Kincaid 240
Results Tell the 1923 Story for the Cooperative Campaign 168
†Resume of 1923 Commercial Department Sales Activities 78
Review Activities of California Water Rights Division 183
Rocky Mountain Committee on Public Utility Information — Denver Meeting Discusses Service and Public Relations 72
Rocky Mountain Cooperative League—Holds Election 72
  Increases Office Space 337
Roseburg Has Modern Apartment House with Electric Ranges 59

S

Sacramento, Calif.—
  Association Elects New Officers for 1924 23
  Dealers, Inspectors and Power Companies Meet 137
  Electrical Men Are Dinner Guests of Union 109
  *Filtration Plant Power Equipment 69
  Union Street Railway Terminal Plan 29
Sacramento Valley Electrical Society—
  Has Successful Dinner Meeting 23
  Holds Monthly Meeting 175, 251, 328
  Meets at Substation 108
Safety Meetings Held by Washington Companies 337
Safety Rules Bureau, Report of—by R. H. Cates 417
Sale and Application of Electric Water Heaters, The—by J. M. Morris 385
†Sales Activities, Resume of 1923 Commercial Department 78
†Sales Plan for Every Month in the Year, A 2
Salt Lake Basin Water Power Is Subject of Publication 29
Salt Lake City, Utah—
  Electrical Jobber to Discontinue Auto Supplies 71
  Engineers Hear Talk by Seattle Editor 335
  Lighting Service Bureau Broadening Its Scope 256
  Lighting Service Bureau's Work Lauded 224
  Utility Employees Hold Joint Meeting 338
San Diego, Calif.—
  Contractor-Dealers Celebrate Christmas 72
  Club Addressed by New Manager 508
  *Contractor Builds Only All-Electric Homes 367
  Electric Club Appoints New Committees 186
  Electric Club Asked to Attend L. A. Banquet 107
  Electric Club Discusses Street Lighting 376
  Electric Club Elects Officers for 1924 148
  Electric Club Has Telephone Operation Explained 470
  Electric Club Visits Local Generating Plants 338
  Will Have Another All-Electric Home 251
  Woman Has City Electrician's Examination Certificate 108
San Diego Consolidated Gas & Electric Co.—Construction Program Outlined 105
San Diego Consolidated Gas & Electric Co.—W. H. Talbott Elected Employees' Assn. President 34

Page

San Francisco, Calif.—
  Action on Power Is Delayed by Supervisors 66
  Banquet Held by Contractor-Dealers 110
  Electrical Development League Entertains 65 Children 34
  Electrical League Elects Officers for 1924 147
  P. G. and E. Co. Takes New Public Relations Step 31
  Public Utility Commission Recommended 503
  Supervisors Vote Appropriation to Evaluate Power Company Properties 337
  Supervisors Vote to Evaluate Systems 28
  Supervisors Vote to Start Evaluation 107
San Joaquin Light & Power Corp.—
  New Building—by Roy Garman 275
  Publishes History in Year Book 469
  To Purchase Energy from Turlock Irrigation District 218
  Will Spend Total of $6,000,000 in 1924 67
"Saving Sierra Snows" (booklet) 33
Seattle, Wash.—
  Business Building to Be Electrically Heated 295
  Company Is to Conduct Range Sales Campaign 257
  Council Asked to Appropriate Funds for Extensions 505
  Council Favors Municipal Telephone Regulation 299
  *Electric Club Prepares Telephone "Smile" Plaque 298
  Electric Home Exhibit to Be Held in Fall 376
  Electro-Chemical Power Rate Before Council 104
  Grants Time Extension to Skagit Contractors 69
  *Holds Modern Homes Exposition 292
  Ladies' Day Meeting Successful 375
  Lawyer's Opinion Halts Sale of Power Bonds 31
  Municipal Light Department to Furnish Current to Pacific Nitrogen Co. 148
  Municipal Ownership Advocates Meet 68
  Municipal Railways Placed on Warrant Basis 105
  To Have Third Electric Home 295
  Will Investigate Skagit Power Project 180
  Will Try Experiment to Prevent Electrolysis 261
Secretary Work Presents Report on Swing-Johnson Bill 257
*Seemingly France Needs a Board of Fire Underwriters and an Electrical Code 273
Selling Electricity for Industrial Heating —by E. J. Cipperly 383
Selling of Electric Appliances Is No Problem to the Department Store—by E. A. Norton 394
*Selling Smiles—by H. Austin Adams 236
Serial Reports of Prime Movers Committee Published 223
Series of Advertisements Sent Out by Cooperative Body 336
Service Without Price 233
*Setting a Stock Sales Record—by John T. Bartlett 121
Sevier River System, Utah, Water Must Be Conserved 375
Shall the Contractor-Dealer Sell Washing Machines? 498
Shall the State Go into the Power Business in Washington? 246
*Show "Before and After" Views to Your Prospects 26
Similkameen Power House—Installation of Water Wheel Completed 107
Simplex Electric Heating Co.—Receives Electric Heater Orders from Japan 70
Site Is Secured for New Steam Plant at Marshfield 222
Skagit Accounting System Not Separate from City Bookkeeping Department 233
Skagit River Project—
  Development Under Fire 81
  Lawyer's Opinion Halts Sale of Seattle Power Bonds 31
  Seattle Grants Time Extension to Contractors 69
  To Be Investigated by Seattle, Wash. 180
Smile 44
Smile Will Penetrate Even into the Highest Mountains, A 272
Snowfall and Water Conditions in the Northwest 337
Snowfall Now on Sierra Nevadas, One-Third of Normal 104
Society for Electrical Development Undertakes Cooperative Fan Motor Program 289
Some Facts About Street Lighting—by G. H. P. Dellman 404
Sound Power Company of New York Seeks Permit for Sultan River Site 335
South End Electric Company Moves 507
Southern Alameda Electrical Men Form Development League 137

Page

Southern California Edison Co.—
Announces Largest Budget 28
Appliance Campaign—by A. W. Childs 7
†Appliance Merchandising Campaign.... 3
Asks Temporary Rate Increase..... 502
Break in Big Creek 8 Penstock Results in Two Deaths..... 71
Duplicate Franklin's Experiment at L. A. Meeting 110
Orders Largest Synchronous Condensers 71
R. H. Ballard States No Hydroelectric Power Shortage Imminent..... 105
Southern Colorado Power Company Plans Improvements 374
Southern Colorado Power Company Representatives Meet 376
Southern Idaho Land & Power Co.—
Federal Power Commission Grants Preliminary Permit 67, 143
Special Regulations Issued by Denver City Electrician 289
*Specialized Departments Increase Range Sales 213
Spokane Radio Association Holds Week's Exhibit 186
*Staging a Successful Illumination Sales Campaign—by H. H. Allison..... 165
†Starting and Finishing..... 153
*State Association Meeting to Be at Stockton March 15 175
Stewart Electric Manufacturing Buys Safety Electric 261
*St. Louis Electrical Dealers Turn Local Street Car System into Sales Producing Medium for New Washing Machine..... 501
Stone & Webster — Building New Cle Elum Substation 71
*Store Arrangement Aids in Merchandising Electrical Appliances — by D. D. McFarlane 47
Street Lighting Subject of San Diego Electric Club Address 376
Street Railway Men Entertained by San Diego Club 34
†Study of Electric Heating Load Needed.... 154
Study of Electric Range Load Will Be Made in Pacific Northwest..... 272
*Study of Underground Systems, A—by R. C. Powell 427
Success of Boulder Canyon Legislation Doubtful 296
†Suggestion for Collecting Bills, A..... 269
Suggestions to the Amateur on Radio Installations—by J. M. Evans..... 367
Suggests Black or Mojave Canyon Dam to Control Colorado 256
Sultan River Plant, Construction Started on 258
Superpower—
Agitation Is Continuing..... 156
†Again Takes the Stage..... 476
Amendments to Washington Power Measure Sanctioned 34
Gets Attention from Press..... 5
Misinformation Regarding 42
On the Pacific Coast—by George C. Tenney 83
Washington League Opens Seattle Office 29
Supervisors Requested to Delay Hetch Hetchy Bond Vote 181
Supervisors Vote to Evaluate San Francisco Systems 28
Survey Shows 1924 Will Be Record Year for Hydroelectric Development 97
Swing-Johnson Bill, Report on..... 257
Swing-Johnson Bill Subject of Comment 270

T

Tacoma, Wash.—
Advertises Bond Sale for Lake Cushman Project 69
Celebrate Ground Breaking for Electric Home 29
Electric Club Reorganized 337
Men Prepare to Display Electric Home in May 299
Municipal Net Operating Income Less Than 1922 144
Power Bonds Bids 33
Takes Exception to Statements Regarding Los Angeles Municipal System..... 346
Talbott, W. H., Elected Employees' Association President 34
Tariff Supplement Is Filed by Grays Harbor Company 260
†Taxes—We Can Be Sure of Nothing Except Death and Taxes—Especially Taxes 41
*Telephone Recognized as Factor in Public Relations 164
*Telling the Story in the Palace of Electricity 24
Tenth Annual Convention Held by New Mexico Association 186
Test Made on New Tacoma Oil Burning Equipment 373
*There's Money for You in the Other Man's Contest 252
*They Tried It and Succeeded—You Can Do It Too..... 501
*Third Caribou Unit Placed in Service April 10 297
Thomas Day Company Joins Electrical Associations 499
*Thousands Visit Hollywood Electric Home Exhibit 254
*Timely Resolutions for New Year Resolutionists—by Joe Osier 26
To Display Third Electric Home in Salt Lake City 262
†Toast, Only Make It Electrically, Eat.... 40
To Ship Oak Grove Turbine Unit Before Middle of Month 32
To Start Construction Work on Sultan River Plant Soon 258
*Tractor Aids in Mountain Repair Work During Winter Snows 207
†Trade Associations, Hidden Reef in Path of 117
Trade Outlook 38, 76, 114, 152, 190, 228, 266, 304, 342, 380, 474, 512
Training the Future Employee Through Cooperative Education 205
*Transformer Cooling — by E. R. Stauffacher 451
"Transmission Line Design" (Univ. of Wash. Bulletin No. 17)..... 33
Transmission Lines—
B. C. Electric Completes $200,000.... 66
Western, Completed in 1923 and Projected for 1924 99
Transportation Committee Holds Second Meeting of Year 33
*Traveling Electrical Display Attracts Attention 60
Trinity River Diversion Recommended by Board 258
Trophy Donated to Seattle Electric Club Golfers 504
†Truck Business in 1923, Development of Electric 78
Turbine Comp'eted, World's Highest Head Reaction Type 68
Two Permits for Power Projects Issued in California 185

U

†Ultimate Goal of Customer-Ownership.... 116
*Underground Systems, A Study of — by R. C. Powell 427
Universal Electric & Gas Company, Division of Property Petitioned..... 374
University of Washington — Engineering Experiment Station—Bulletin No. 17.... 33
U. S. Civil Service Commission — Announcement — Position as Assistant Electrical Engineer, Philippine Islands Power Plant 32
Unusual Sales Letter Employed to Sell Electric Ranges 329
*Use County Fairs to Develop Appliance Prospects 62
Utah Engineering Council Holds Annual Meeting 376
Utah Engineering Societies, New Officers Named by 507
Utah Power & Light Co.—
Adding 20,000-kw. Unit to Jordan Plant 504
Filing on Bear River Is Made..... 28
Franchise Granted for Power Lines in Arimo, Idaho 32
Utah Steel Plant, Satisfactory Progress at 337
Utah Utility Company, Annual Report Announces Growth of 507
Utility Accounting—by A. B. Carpenter 417
Utility and Irrigation District Sign Water Use Contract 219
†Utility in Community Advertising, The Part of the 79
Utility Is Conducting Kitchen Lighting Campaign 220

V

Victoria Lumber & Mfg. Co.—Will Erect Electrified Mill 29
View of Dam Site on Pit River..... 145

W

Walla Walla, Wash.—Agitation for City Ownership Started 68
Washington—
Superpower League Opens Seattle Office 29
Utility Agents Hold Annual Sales Meeting 223
Water Power Agitation Lively..... 4
Washington Water Power Co.—
Completes Installation of Water Wheel 107
Last Unit of Long Lake Plant Now Being Installed 66
Places Large Insulator Order..... 298
Plans Improvements 107
Point System a Base for Salesmen's Quotas 63
Publishes House Organ, "The Illuminator" 108
Reports Appliance Sales 181
Sales Department Is Entertained at Banquet 108
Similkameen Plant Will Double Capacity 28
*Work on Long Lake Plant Fourth Unit Nearly Completed 106
Water and Power Act—
Agitation Lively in Washington..... 4
Arraigned by Bond House..... 4
Draws Fire from Rural Press..... 478
Water and Power Initiative Measure Secures 50 Per Cent of Signatures..... 370
Water Rights Granted to Utility by State Power Board 298
†Way to Get Something Accomplished The 193
†We Can Be Sure of Nothing Except Death and Taxes—Especially Taxes..... 41
Welded Electrically, Heavy Pipe Fittings Are Being 33
West—Appliance Sales Possibilities of..... 92
West Kootenay Power & Light Company Proposes Dam for Kootenay Lake Site 505
†West, The Electrical..... 77
Western Colorado Power Co.—Repairs to Telluride Central Station 30
*Western Dealers Place in National Window Contest 61
Western Electric Co.—Anaconda, Mont., City Hall Wiring Contract..... 71
†Western Industry and Western Waste..... 154
Western Public Service Co. Installs New Display Windows 260
Western States Gas & Electric Co.—
El Dorado Plant Placed in Service.... 108
Penstock at El Dorado Plant Bursts 66
"Saving Sierra Snows" (booklet)..... 33
Westinghouse Electric & Mfg. Co.—
Awarded Contract for First Unit L. A. Gas & Electric Corp. Plant 32
†Celebrates Forty Years of Service to Industry 477
Consolidation of International Company with Mitsubishi 29
Edison Co. Orders Largest Synchronous Condensers 71
Lets Contract for Second Emeryville Unit 67
Presents Annual Report 506
Present Retail Salesman's Creed in Westinghouse Booklet 33
Publishes Book on Modern Lighting Design 293
To Build New Half Million Dollar Plant in California 336
When Electricity Is Used to Light the Fish 42
†Where Are Electrical Dealers to Come From? 230
†Where Municipal Ownership Invariably Hits a Snag 40
While Others Use Statistics..... 232
Who Retails Electrical Appliances?..... 279
†Why Discriminate Against Electric Trucks? 230
†Why Discriminate Against One of the Youngest Electrical Industries?..... 344
Why I Belong to the Electrical Contractors' and Dealers' Association—by C. T. Smallcomb 250
*Why I Do Not Believe in Municipal Ownership—by Ole Hansen 235
*Why Not Smile All of the Time?—by Joe Osier 63
Will Make Additions to Honolulu Electric Power System 30
*Will Repeat Use of June Bride Week Window Material 259
Willapa Electric Company Petitions for Right of Way 144
Window Displays—
*Let the Display Sell Results Instead of Materials 27
Show "Before and After" Views to Your Prospects 26
*Western Dealers Place in National Contest 61
†With Desire But Not With Hope..... 269
Woman Has City Electrician's Examination Certificate 108
Women's Public Information Committee of N.E.L.A., Pacific Coast Division, Meeting 469
World Power Conference to Be Attended by Seven Western Men 470
World's Largest Hydroelectric Unit Placed in Service 32
Wyoming Utilities Association Convention Dates Changed to Follow Atlantic City Meeting 298
Wyoming Utility Association Sets Convention Date 338

Y

Yosemite Lumber Company Electrifies Two New Incline Railways..... 375